

REMARKS

Claims 21-26 have been added. As such, claims 1-14 and 21-26 are currently pending in the case. Further examination and reconsideration of the presently claimed application is respectfully requested.

Allowed Claims

Applicant acknowledges and appreciates the Examiner's allowance of claims 1-8.

Allowable Subject Matter

Claims 10-14 were objected to as being dependent upon a rejected base claim and were deemed allowable if rewritten in independent form. Applicant sincerely appreciates the Examiner's recognition of the patentable subject matter recited in these claims. However, as will be set forth below, independent claim 9 is believed to be patentably distinct from the cited art. Accordingly, removal of the objection to claims 10-14 is respectfully requested.

Section 102 Rejections

Claim 9 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application No. 2001/0040778 to Abraham et al. (hereinafter referred to as "Abraham"). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), MPEP 2131. Abraham does not disclose all limitations of the currently pending claims, some distinctive limitations of which are set forth in more detail below.

Abraham does not disclose alternating steps of etching exposed portions of a stack of layers and implanting dopants into the exposed portions. Claim 9 recites "[a] method for forming a magnetic memory cell junction, comprising: patterning a mask layer above a stack of layers; and alternately etching and implanting dopants into exposed portions of the stack of layers." To support the anticipation rejection of claim 9, the Examiner cites Figs. 10-13 of Abraham. None of such figures or the accompanying text of the application, however, teach or suggest alternating steps of etching exposed portions of a stack of layers and implanting dopants into the exposed portions.

In particular, the methods described in reference to Figs. 10a-10e and 11a-11e outline processes in which a stack of layers is patterned in alignment with a masking layer and an insulating layer is deposited thereafter. There is no teaching or suggestion of dopant implantation within such methods, much less incorporating a dopant implantation process alternately with etching the stack of layers. Consequently, Abraham fails to teach or suggest the limitations of claim 9 in reference to Figs. 10a-10e and 11a-11e. Similarly, the process described in reference to Figs. 12a-12c fails to teach or suggest dopant implantation and, therefore, fails to anticipate the limitations of claim 9. More specifically, Figs. 12a-12c depict a process in which a single layer (i.e., mask 200) is removed and another layer (i.e., free region 424) is deposited in its place. Not only does Abraham fail to teach or suggest dopant implantation within such a process, there is no teaching or suggestion of etching a stack of layers within the method described in reference to Figs. 12a-12c. Consequently, there is no teaching or suggestion of alternating such processes steps in reference to Figs. 12a-12c. Although the method described in reference to Figs. 13a-13c in Abraham includes the implantation of oxygen, there is no teaching or suggestion of etching a stack of layers within such a process, much less alternately with the implantation process. Consequently, the method described in reference to Figs. 13a-13e fails to anticipate the limitations of claim 9.

For at least the reasons stated above, Abraham fails to anticipate the limitations of claim 9. Accordingly, removal of the § 102(b) rejection of claim 9 is respectfully requested. Furthermore, it is asserted that no combination of the methods described in reference to Figs. 10a-13c teach the limitations of claim 9 nor is there any motivation within Abraham to modify such methods to teach the limitations of claim 9. In particular, Abraham teaches each of the methods described in reference to Figs. 10a-13c as distinct processes in which to fabricate a structure that limits electrical tunneling through only a preferred portion of a free magnetic region. There is no teaching or suggestion of how alternately etching portions of a stack of layers and implanting dopants into the stack of layers could beneficially contribute to such an objective. Furthermore, for the sake of argument, even if the methods described in reference to Figs. 10a-13c were combined, the resulting combination would not meet the limitations of claim 9. Therefore, claim 9 and claims dependent therefrom are patentably distinct over the cited art.

Patentability of Added Claims

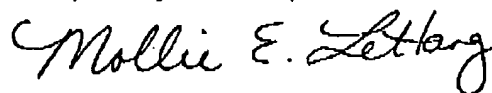
The present amendment adds claims 21-26. Claims 21 and 22 are dependent from claim 9 and are believed patentable as stated above. Independent claim 23 includes the limitations of claim 9 and the allowed subject matter of claim 10. Accordingly, it is asserted that claims 23-26 are also patentable over the cited art. Accordingly, approval of added claims 21-26 is respectfully requested.

CONCLUSION

This response constitutes a complete response to the issues raised in the Office Action mailed July 19, 2005. The prior art made of record but not relied upon are not considered pertinent to the presently claimed case. In view of the remarks herein traversing the rejections presented in the Office Action, Applicants assert that pending claims 1-14 and 21-26 are in condition for allowance. If the Examiner has any questions, comments, or suggestions, the undersigned earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees, which may be required, or credit any overpayment, to Daffer McDaniel LLP Deposit Account No. 05-3268/5298-13201.

Respectfully submitted,



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